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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 19

Application Number: 08/860,007
Filing Date: 08/04/97
Appellant(s): RALF BERSCHEID, ET AL.

Jeffrey S. Melcher
For Appellant

EXAMINER'S ANSWER

This is in response to appellants' brief on appeal filed October 25, 1999.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on March 26, 1997 has been entered.

The amendment after final rejection that appellants state was filed on an even date with appellants' brief has not been entered. There is no such amendment of record in the file.

(5) Summary of Invention

The summary of invention contained in the brief is correct. While appellants have merely recited all of their claims in the Summary of the Invention, it noted that the claims are drawn to a narrow group of compounds (Claim 13 is representative thereof), compositions of a broader class of related compounds including those of Claim 13 (see Claim 14 drawn to disinfectant, antiseptic, antimycotic, deodorant or preservative; and Claim 21 drawn to shampoo or show gel), methods of using the broader class of compounds (see Claim 22 drawn to disinfecting; and Claim 24 drawn to deodorizing) and methods of preparing the broader class of compounds (Claim 26).

(6) Issues

The appellant's statement of the issues in the brief is correct.

Appellants' brief presents arguments relating to whether the Examiner's action follows the procedure as set forth in M.P.E.P. § 706.04. See page 13 of appellants' brief. This issue relates

to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. This is a procedural issue and does not go to the merits of any of the rejections. See MPEP §§ 1002 and 1201.

(7) Grouping of Claims

The rejection of claim 26 under 35 U.S.C. § 112 involves only one claim.

The rejection of claims 8, 14, 16-18 and 21-25 under 35 U.S.C. § 103 as being unpatentable over HOPP (USP 4,110,430) stand or fall together because appellants' brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 8, 13, 14, 16-18, 21-25 and 33-35 under 35 U.S.C. § 103 as being unpatentable over SIPOS (USP 4,321,257) stand or fall together because appellants' brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claim 26 under 35 U.S.C. § 103 as being unpatentable over HAFNER (USP 4,968,668) in view of VOGEL involves only one claim.

(8) Claims Appealed

The copy of the appealed claims 8, 13, 14, 16-18, 21-26 and 33 contained in the Appendix to the brief is correct.

A substantially correct copy of appealed claims 34 and 35 appears on pages 30 and 31 of the Appendix to the appellant's brief. The minor errors are as follows: In line 2 of each claim "14" should read --27--.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

4,110,430	HOPP	8-1978
4,321,257	SIPOS	3-1982
4,968,668	HAFNER	11-1990

VOGEL, "A Textbook of Practical Organic Chemistry," 3rd Ed., pp. 483-488 (1965)

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 26 stands rejected under 35 U.S.C. § 112, first and second paragraphs.

The process steps as recited in the claim will not afford products wherein n is 2. A process for carrying out the claimed process to afford such products is not disclosed nor enabled in the specification as filed. If one has to carry out additional process steps to obtain such products, such critical reaction steps and conditions are not set forth in the claim which makes the claim to fail to particularly point out the claimed invention. Page 9 of the specification is noted. While page 9

teaches a method of preparing compounds wherein n is 2, the process of page 9 is not being claimed here. If the claims are intended to read on the process steps of page 9, the claims fail to particularly point this out. As the claims presently read, they read on a process wherein products where n is 2 are obtained by the process steps specifically recited in the claims which is not enabled.

Claims 8, 14, 16-18, 21-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over HOPP (USP 4,110,430).

The reference teaches active agents that differ from the active agent recited in the claims only as to the position of the alkyl group on the benzene ring, note the compounds of formula I. Such agents are isomeric and so structurally similar that one would expect the respective agents to possess a community of properties in common rendering such a modification of the prior art compounds obvious. Further, the prior art active agents are homologous to the claimed compounds with respect to the alkyl group on the benzene ring, the R_1 group, the R group and/or the value of n. Homologues are a class of compounds differing only by methylene linkages and possessing similar structures. Compounds of a homologous series are recognized as possessing a community of properties in common. Accordingly, it would have been obvious to one or ordinary skill in the art to interchange of these homologous substituents in the prior art active agent would afford closely related structures and agents possessing similar properties.

It is of no moment that the prior art does not teach all the same activity or utility for the prior art compounds as that described by applicants. The skilled artisan need possess only some motivation

to modify the prior art compound, and that such motivation need not coincide with the one driving an applicant. The motivation is related to the uses one skilled in the art would expect that compound to have upon analyzing the prior art. That an applicant comes upon a use of a compound that is not taught by the prior art does not speak to the compound's nonobviousness. *In re Shetty*, 195 USPQ 753 (CCPA 1977); *In re Lintner*, 173 USPQ 560 (CCPA 1972); *In re Hoch*, 166 USPQ 406 (CCPA 1970).

The tables set forth in the specification have been carefully considered but not found persuasive of patentability. The tables do not make any direct comparison of a prior art compound with the structurally closest claimed compounds. As such there is no evidence that the claimed compounds possess unexpectedly superior properties or properties different from the prior art.

Claims 8, 13, 14, 16-18, 21-25 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over SIPOS (USP 4,321,257).

The reference generically teaches the claimed compounds or active agents, note the phenyl alkanols given at the bottom of column 4. Also, note the agents specifically referred to in lines 43-51 of column 5. The reference does not specifically exemplify the instant compound. However, the generic teaching indicates to one of ordinary skill in the art that species falling within the generic disclosure, including the instantly claimed compound, would possess the prior art use. It is well

within the skill of the artisan to select among the alternatives of the reference to afford compounds possessing the prior art use, *In re Lemin*, 141 USPQ 814.

Also, the reference teaches active agents that differ from the active agent recited in the claims only as to the position of the substituents on the benzene ring. Such agents are isomeric and so structurally similar that one would expect the respective agents to possess a community of properties in common render such a modification of the prior art compounds obvious. Furthermore, the prior art active agents are homologous to the claimed compounds with respect to the alkyl groups on the benzene ring, the R_1 group, the R_2 group and/or the value of n. Homologues are a class of compounds differing only by methylene linkages and possessing similar structures. Compounds of a homologous series are recognized as possessing a community of properties in common. Accordingly, it would have been obvious to one or ordinary skill in the art to interchange of these homologous substituents in the prior art active agent would afford closely related structures and agents possessing similar properties.

It is of no moment that the prior art does not teach all the same activity or utility for the prior art compounds as that described by applicants. The skilled artisan need possess only some motivation to modify the prior art compound, and that such motivation need not coincide with the one driving an applicant. The motivation is related to the uses one skilled in the art would expect that compound

to have upon analyzing the prior art. That an applicant comes upon a use of a compound that is not taught by the prior art does not speak to the compound's nonobviousness. *In re Shetty, supra*; *In re Lintner, supra*; *In re Hoch, supra*.

The tables set forth in the specification have been carefully considered but not found persuasive of patentability. The tables do not make any direct comparison of a prior art compound with the structurally closest claimed compounds. As such there is no evidence that the claimed compounds possess unexpectedly superior properties or properties different from the prior art.

Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over HAFNER (USP 4,968,668) in view of VOGEL ("A Textbook of Practical Organic Chemistry").

HAFNER teaches an analogous process that differs from the claimed process in that the prior art does not recite step (a) and some of the reactants differ as to the substituents present, note the schematic at the top of column 3 and Example 3.

The recited step (a) is a standard textbook method of preparing the alkylmalonates that would be used in the HAFNER process. No patentable significance is seen in reciting a standard method of preparing a known starting material that would be used in the prior art process. Moreover, with respect to multi-step synthetic procedures involving a combination of individually well known chemical reactions, it has been held that one of ordinary skill in the relevant art is charged with

knowledge of the individual chemical reactions and their combination to produce a desired end product would have been obvious, *In re Payne*, 203 USPQ 245; *In re Winslow*, 151 USPQ 48; *In re Kamlet*, 88 USPQ 106.

The differences in the reactants are found only in substituents that are removed from the reaction site and do not affect the outcome of the reaction. The reactive functional groups involved are the same and undergo the same conversion. The claimed process affords the products one would expect from the teaching of the prior art. The use of a new starting material in an otherwise old process is considered obvious.

The examiner's conclusion of obviousness is not based upon improper hindsight reasoning. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 170 USPQ 209.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 5 USPQ2d 1596 and *In re Jones*, 21 USPQ2d 1941. As pointed out above, one would be motivated to prepare a necessary starting materials by known, standard methods of synthesis.

Assertions that the products possess unexpected properties have been considered but not found persuasive. The properties of the products are not the result of the method of preparation but rather the structural features of the products themselves regardless of the method of preparation.

(11) Response to Argument

It is considered that the Examiner has addressed the issues adequately in the rejections as set forth above. The following points are noted.

Claim 26 stands rejected under 35 U.S.C. § 112, first and second paragraphs.

The issue here is directed to the preparation of the products of the formula I given in claim 26 wherein n = 2. The recited process starts with a malonic acid diester (step a) which through a series of steps affords a 3-aryl-substituted propanoic acid which is reduced to the desired alcohol of formula I (step d). This process is shown schematically on page 7 of appellants' specification. It should be noted that the product is a 3-aryl-substituted propan-1-ol (e.g., n = 1). Since the process requires the use of a malonic acid diester starting material and reduction of a 3-aryl-substituted propanoic acid, the specific steps recited will not afford a 4-aryl-substituted butan-1-ol (e.g., n = 2). However, the claim reads on preparing products wherein n = 2 by the steps specifically recited (i.e., "reducing the 3-aryl-substituted propanoic acid to form the desired

alcohol of formula I"). As such, the claim must be considered to read on processes that are not disclosed or enable.

Appellants point to the process schematically shown on page 9 of their specification. While this process does in fact show how to make compounds of formula I when n = 2, the process shown is not within the purview of the claimed process. The question here is not how does one prepare compounds of formula I when n = 2, but rather how does one prepare compounds of formula I when n = 2 according to the claimed process. The disclosure on page 9 does not answer this question. Note the process of page 9 does not use the reaction steps required by the claim and is inconsistent with claim step (d) which requires that compound of formulae I be prepared from a 3-aryl-substituted propanoic acid[1].

It is particularly noted that appellants admit that a different starting material is required to obtain the product when n = 2 as compared to the process when n = 1, see next to the last full paragraph of page 12 of appellants' brief. Appellants simply ignore the fact that claim is limited to the use of a malonic acid diester and does not read on the use of any starting material that will afford a product where n = 2.

Even if one was to find that the claimed process is enabled and described by the disclosure of page 9, one would have to conclude the claim fails to particularly point out the invention.

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While the process of page 9 does show a reduction step, the reduction involves a 4-aryl-substituted butanoic acid and not the required 3-aryl-substituted propanoic acid.

None of the steps, reactants or reagents shown on page 9 are recited in the claim. It is readily apparent that such steps, reactants and reagents are critical to the claimed process for the preparation of products when n = 2.

Claims 8, 14, 16-18, 21-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over HOPP (USP 4,110,430).

Appellants' arguments are adequately addressed in the rejection above. It is noted that appellants urge that the evidence as found in the Tables on pages 19, 21, 23, 24, 25 and 27 rebuts the *prima facie* case of obviousness, page 15 of appellants' brief. As pointed out above in the rejection, the tables do not make any direct comparison of a prior art compound with the structurally closest claimed compounds. As such there is no evidence that the claimed compounds possess unexpectedly superior properties or actual properties different from the prior art.

Claims 8, 13, 14, 16-18; 21-25 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over SIPOS (USP 4,321,257)

Appellants' arguments are adequately addressed in the rejection above. It is noted, there is no evidence that the claimed compounds possess actual properties different from the prior art.

Claim 26 stands rejected under 35 U.S.C. 103(a) as being unpatentable over HAFNER (USP 4,968,668) in view of VOGEL ("A Textbook of Practical Organic Chemistry")

Appellants' arguments are adequately addressed in the rejection above.

It is noted that HAFNER disclosed steps (b)-(d), note the schematic at the top of column 3 and the discussion thereof. HAFNER states the diethyl methylmalonate is known, line 48 of column 3. VOGEL clearly demonstrates that claim step (a) is a standard method of synthesis of a C-substituted malonic ester (see the bottom portion of page 483 and Example III,153). Also note VOGEL further suggest that the C-substituted malonic ester can be further reacted to form a C-disubstituted malonic ester (see the first full paragraph of page 484) which corresponds to claim step (b) and the first step of the HAFNER process. As pointed out above, no patentable significance is seen in reciting a standard method of preparing a known starting material that would be used in the prior art process.

It is emphasized that, while HAFNER teaches reactants that have been provisosed out of the claim with respect to the benzyl halide of step (b), the benzyl halide reactants that are still claimed are structurally very similar to the HAFNER benzyl halide reactants. The malonic product of claim step (a) reads on HAFNER's diethyl methylmalonate reactant.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted

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